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10/680,953	10/07/2003	Christopher John Stakutis	SJO920030049US1	6058

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EXAMINER	
KIM, PAUL	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/680,953	STAKUTIS ET AL.
	Examiner	Art Unit
	Paul Kim	2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 05 September 2007.
2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-35 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) 1-35 is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☐ All b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is responsive to the following communication: Amendment filed on 5 September 2007.

2. Claims 1-35 are pending and present for examination.

Response to Amendment

3. Claims 1, 14, 20, and 23 have been amended.

4. No claims have been cancelled.

5. No claims have been added.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 1-2, 8-9, 14-15, 20-21, 24, and 30-31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sedlar (U.S. Patent No. 6,922, 708), filed on 15 May 200, and issued on 26 July 2005, in view of Nakagawa et al (U.S. Patent No. 5,819,295), filed on 26 September 1996, and issued on 6 October 1998.

8. **As per independent claims 1, 14, 20, and 23,** Sedlar, in combination with Nakagawa, discloses:

A method comprising:

processing a request to write to a source file in a storage system {See Sedlar, C34:L1-34, wherein this reads over "a new version is created for a file"};

determining whether a retention rule is provided for the source file in response to the write request {See Sedlar, C33:L19-31, wherein this reads over "[t]aging a version of a file indicates that a version of the file should be retained. Thus, rather than always retaining older version of files when newer versions are created, older versions of files are retained only if they have been tagged"};

in response to determining that one retention rule is provided for the source file, generating a versioned file name, wherein a versioned file comprises the source file at a point-in-time {See Sedlar, C31:L38-46, wherein this reads over "a version tracking mechanism is provided by storing a version number with each file in a project"};

transmitting a command to a file system to copy the source file data to a versioned file having the generated versioned file name {See Sedlar, C31:L20-27, wherein this reads over "a FileID and version number are maintained for each version of each file"};

adding the generated versioned file name to a retention index file indicating versioned files for the source file {See Sedlar, C31:L38-46, wherein this reads over "[w]henever a file is created, a row for the file is inserted into the files table 710, and a predetermined initial version number (e.g. 1) is stored in the version column of that row"};

determining from the retention index, versioned files for the source file to purge in response to determining that the retention rule indicates a maximum number of versioned files for the source file and the versioned files for the source file do not satisfy the retention rule {See Sedlar, C34:L1-34, wherein this reads over "[a] purge count indicates the maximum number of versions that will be retained for any given file"};

determining from the retention index, versioned files for the source file to purge in response to determining that the retention rule indicates a time limit of versioned files for the source file and the versioned files for the source file do not satisfy the retention rule {See Nakagawa, C12:L16-39, wherein this reads over "an entity deleted version information 1112 designating as to from which version counted from the latest version of the documents should be deleted, and entity deleting time information 1113 designating a period of time having elapsed from when the folder was made during which the documents should be stored and after which the documents should be deleted"}; and

issuing a command to purge the determined versioned files {See Sedlar, C34:L1-34, wherein this reads over "deletes the oldest non-tagged version of the file in response to creating a new version"}

applying the write to the source file in response to determining that no retention rule is provided for the source file {See Sedlar, C33:L20-32, wherein this reads over "[o]therwise, they are replaces (overwritten) when newer versions are created"}.

While Sedlar may fail to expressly disclose the use of a retention rule that indicates a time limit of versioned files to which said versioned files must satisfy, Nakagawa discloses the designation of a time period after which documents should be deleted. The combination of inventions disclosed in Sedlar and Nakagawa would disclose a method wherein versioned files are purged by making a determination from a retention index whether the versioned files had either exceeded a maximum number of files allowed or failed to meet the requirements of a time limit rule. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made.

One of ordinary skill in the art would have been motivated to do this modification so that the method of purge would have multiple retention rules (i.e. a count rule and a time limit rule) to manage the number of versioned files maintained on a storage system.

9. **As per dependent claims 2, 15, 21, and 24,** Sedlar, in combination with Nakagawa, discloses:

The method of claim 1, further comprising:

> deleting the versioned file names for the determined versioned files to purge from the retention index file, wherein the command to purge is issued by transmitting the command to the file system to delete versioned files having the determined versioned file names {See Sedlar, Figures 5, 6, and 10; C31:L20-27, wherein this reads over "a FileID and a version number are maintained for each version of each file"; C31:L38-45, wherein this reads over "a row from the file inserted into the files table 710"}.

10. **As per dependent claims 8 and 30,** Sedlar, in combination with Nakagawa, discloses:

The method of claim 1, further comprising:

> determining from the retention index versioned files for the source file to purge in response to determining that the retention rule specifies a time period {See Nakagawa, C12:L16-39, wherein this reads over "an entity deleted version information 1112 designating as to from which version counted from the latest version of the documents should be deleted, and entity deleting time information 1113 designating a period of time having elapsed from when the folder was made during which the documents should be stored and after which the documents should be deleted"} and maximum number {See Sedlar, C34:L1-34, wherein this reads over "[a] purge count indicates the maximum number of versions that will be retained for any given file"} of versioned files to maintain for the source file within the specified time period and the versioned files for the source file do not satisfy the retention rule.

11. **As per dependent claims 9 and 31,** Sedlar, in combination with Nakagawa, discloses:

The method of claim 8,

> wherein the retention rule specifies multiple time periods and one maximum number {See Sedlar, C34:L1-34, wherein this reads over "[a] purge count indicates the maximum number of versions that will be retained for any given file"} for each time period to separately maintain versioned files for the source file for different time periods {See Nakagawa, C12:L16-39, wherein this reads over "an entity deleted version information 1112 designating as to from which version counted from the latest version of the documents should be deleted, and entity deleting time information 1113 designating a period of time having elapsed from when the folder was made during which the documents should be stored and after which the documents should be deleted"},

wherein the determining whether the number of versioned files to maintain for the source file exceeds the specified maximum number {See Sedlar, C34:L1-34, wherein this reads over "[a] purge count indicates the maximum number of versions that will be retained for any given file"} is performed for each specified time period {See Nakagawa, C12:L16-39, wherein this reads over "an entity deleted version information 1112 designating as to from which version counted from the latest version of the documents should be deleted, and entity deleting time information 1113 designating a period of time having elapsed from when the folder was made during which the documents should be stored and after which the documents should be deleted"},

and wherein selecting the number of oldest versioned file names to purge to reduce the number of versioned file names in the retention index file is performed for each specified time period to reach the maximum number specified for the time period {See Nakagawa, C12:L16-39, wherein this reads over "an entity deleted version information 1112 designating as to from which version counted from the latest version of the documents should be deleted, and entity deleting time information 1113 designating a period of time having elapsed from when the folder was made during which the documents should be stored and after which the documents should be deleted"}.

12. **Claims 3-4, 16, 22, and 25-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sedlar, in view of Nakagawa et al, and in further view of Howard (U.S. Patent No. 6,098,079), filed on 2 April 1998, and issued on 1 August 2000.

13. **As per dependent claims 3, 16, 22, and 25,** Sedlar, in combination with Nakagawa and Howard, discloses:

The method of claim 1, further comprising:

applying a function to the source file name to determine the retention index file {Howard, C3:L26-40, wherein this reads over "[e]ach version entry contains a hash code or digest that to a very high probability uniquely identifies the contents of a corresponding version of the file"}, wherein the determined retention index file maintains names of versioned files for the source file to which the function is applied, and wherein the generated versioned file name is added to the determined retention index {See Sedlar, C31:L38-46, wherein this reads over "[w]henever a file is created, a row for the file is inserted into the files table 710, and a predetermined initial version number (e.g. 1) is stored in the version column of that row"}.

While Sedlar and Nakagawa may fail to expressly disclose the application of a function to a source file name, Howard discloses the use of hash codes in identifying each version of a file. The combination of inventions disclosed in Sedlar, Nakagawa, and Howard would disclose a method wherein versioned files are purged by making a determination from a retention index whether the versioned files had either exceeded a maximum number of files allowed or failed to meet the requirements of a time limit rule. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made.

One of ordinary skill in the art would have been motivated to do this modification so each versioned file would be assigned a unique hash code for entry into the retention index.

14. **As per dependent claims 4 and 26,** Sedlar, in combination with Nakagawa and Howard, discloses:

> The method of claim 3, wherein the function comprises a hash function {Howard, C3:L26-40, wherein this reads over "[e]ach version entry contains a hash code or digest that to a very high probability uniquely identifies the contents of a corresponding version of the file"}, and wherein one retention index may maintain versioned file names for multiple source files to which the function is applied.

15. **Claim 5-7, 17-18, and 27-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sedlar, in view of Nakagawa et al, and in further view of Zibikowski et al (U.S. Patent No. 5,878,410), filed on 13 September 1998, and issued on 2 March 1999.

16. **As per dependent claims 5, 17, and 27,** Sedlar, in combination with Nakagawa and Zibikowski, discloses:

> The method of claim 1, wherein determining from the retention index file the versioned files to purge further comprises:
>
> sorting the versioned file names for the source file in the retention index file ordered on a timestamp included in the versioned file names {See Zibikowski, C5:L10-18, wherein this reads over "it is presumed that at least one of the columns in a view index will be sorted . . . by time stamp"}; and
>
> selecting versioned files from the sorted versioned file names to purge {See Nakagawa, C12:L16-39, wherein this reads over "an entity deleted version information 1112 designating as to from which version counted from the latest version of the documents should be deleted, and entity deleting time information 1113 designating a period of time having elapsed from when the folder was made during which the documents should be stored and after which the documents should be deleted"}.

While Sedlar and Nakagawa may fail to expressly disclose the sorting of versioned file names in the retention index by timestamp, Zibikowski disclose the sorting of an index by timestamp. The combination of inventions disclosed in Sedlar, Nakagawa, and Zibikowski would disclose a method wherein versioned files are purged by making a determination from a retention index whether the versioned files had either exceeded a maximum number of files allowed or failed to meet the requirements of a time limit rule. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made.

One of ordinary skill in the art would have been motivated to do this modification such that the purge of the versioned file names would be done according to the index as sorted by timestamp.

17. **As per dependent claims 6, 18, and 28,** Sedlar, in combination with Nakagawa and Zibikowski, discloses:

> The method of claim 5, wherein determining from the retention index versioned files for the source file to purge in response to determining that the retention rule indicates a maximum number of versioned files for the source file comprises:
>
> determining whether a number of the sorted versioned file names exceeds the maximum number {See Sedlar, C34:L1-34, wherein this reads over "[a] purge count indicates the maximum number of versions that will be retained for any given file"}; and
>
> selecting a number of oldest sorted versioned file names to purge to reduce the number of versioned file names in the retention index file to reach the maximum number {See Nakagawa, C12:L16-39, wherein this reads over "an entity deleted version information 1112 designating as to from which version counted from the latest version of the documents should be deleted, and entity deleting time information 1113 designating a period of time having elapsed from when the folder was made during which the documents should be stored and after which the documents should be deleted"}.

18. **As per dependent claims 7 and 29,** Sedlar, in combination with Nakagawa and Zibikowski, discloses:

> The method of claim 5, wherein determining from the retention index versioned files for the source file to purge in response to determining that the retention rule indicates the time limit of versioned files for the source file and the versioned files for the source file do no satisfy the retention rule comprises:
>
> determining whether sorted version file names exceed the time limit according to the timestamp for the sorted versioned file names {See Nakagawa, C12:L16-39, wherein this reads over "an entity deleted version information 1112 designating as to from which version counted from the latest version of the documents should be deleted, and entity deleting time information 1113 designating a period of time having elapsed from when the folder was made during which the documents should be stored and after which the documents should be deleted"}; and
>
> selecting versioned file names in the retention index whose timestamp exceeds the time limit to purge versioned files whose timestamp exceeds the limit {See Nakagawa, C12:L16-39, wherein this reads over "an entity deleted version information 1112 designating as to from which version counted from the latest version of the documents should be deleted, and entity deleting time information 1113 designating a period of time having elapsed from when the folder was made during which the documents should be stored and after which the documents should be deleted"}.

19. **Claim 10-13, 19, and 32-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sedlar, in view of Nakagawa et al, and in further view of Official Notice.

20. **As per dependent claims 10 and 32,** Sedlar, in combination with Nakagawa and Official Notice, discloses:

> The method of claim 1, wherein the operations of processing the request, determining whether one retention rule is provided, generating a new versioned file name, transmitting the command, adding the generated versioned file name to the retention index file, determining from the retention index the versioned files for the source file to purge, and issuing the command to purge are performed by a host system and wherein the versioned file, source file, and file system are on a remote storage system {See Official Notice}.

The Examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art that to have the aforementioned processed performed by a host system, wherein said host system would have access to perform said operations over a network on a remote storage system such as a database containing the versioned file and source file.

21. **As per dependent claims 11 and 33,** the Examiner takes Official Notice that it would have been obvious to one of ordinary skill in the art that each host system would maintain retention index files which would allow the host system to determine files to purge according to the retention rules. That is, it would have been obvious to one of ordinary skill in the art that wherein the remote storage system would collectively act as a database, that each host system would maintain its own retention index files such that the host system may appropriately determine which files are in need of purging.

22. **As per dependent claims 12, 19, and 34,** the Examiner notes that it would be inherent for the kernel of an operating system in the claim invention to process the write request and the retention rules.

23. **As per dependent claims13 and 35**, the Examiner notes that it would be inherent for the retention rule to identify a name of the source file to which the rule applies since without said identification, the host system would be unable to properly discern to which source file the rule applies.

Response to Arguments

24. Applicant's arguments filed on 5 September 2007 have been fully considered but they are not persuasive.

a. Rejections under 35 U.S.C. 103

As per claims 1, 14, 20, and 23, Applicant asserts the argument that Sedlar fails to "teach or mention determining whether a retention rule is provided for the source file in response to a write request." See Amendment, page 13. The Examiner respectfully disagrees. It is noted that Sedlar discloses a versioning technique which allows for tagging a version of a file to indicate that the version of the file should be retained. See Sedlar, col. 3, lines 20-31. That is, when a newer version of the file is created, it is determined whether the older versions of the files should be retained. This determination is made by considering whether the older versions have been tagged. Accordingly, it is noted that the disclosed method of tagging a file for retention would read upon the claimed limitation of having a retention rule provided for a source file in response to a write request.

Additionally, Applicant asserts the argument that Sedlar fails to teach "that a versioned file name or file is generated when a retention rule is determined for a source file in response to a write request to that source file." See Amendment, page 13. The Examiner respectfully disagrees. As explained above, Sedlar discloses an invention wherein the tagging of files may be used as a means to determine whether a file should be retained. That is, when a file has been tagged, and eligible for retention, a subsequent version of the tagged file would result in a new version being created such that the new version would also include a version number. Accordingly, it is noted that Sedlar does indeed teach a method for generating a versioned file name or file when a retention rule is determined for a source file.

As per claims 8 and 30, Applicant asserts the argument that Nakagawa fails to disclose "the claim requirement of a retention rule that specifies a time period and maximum number of versioned files to maintain for the source file within the specified time period." See Amendment, page 14. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re*

Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). It is noted that Nakagawa discloses a timing to delete document entities in a folder while Sedlar discloses the use of a purge count in specifying the number of files that may be retained. Accordingly, the combination of the disclosed inventions in Nakagawa and Sedlar would indeed disclose the aforementioned claim limitation found in claims 8 and 30.

As per claims 9 and 31, Applicant asserts the argument that Nakagawa fails to disclose "a maximum number of versioned files to maintain for a time period." See Amendment, page 15. The Examiner respectfully disagrees. As mentioned above in relation to claims 8 and 30, it is noted that the combination of the disclosed inventions in Nakagawa and Sedlar would indeed disclose the aforementioned claim limitation found in claims 9 and 31.

As per claims 3, 16, 22, and 25, Applicant asserts the argument that "the hash code of Howard does not identify the journal files having the entries for versions of a file." See Amendment, page 16. The Examiner respectfully disagrees. It is noted that Howard discloses a system wherein "[e]ach version entry in each journal file contains a site indicator field indicating which of the journal files for the other sites has a copy of the entry." See Howard, col. 3, lines 56-59. Furthermore, wherein each version entry contains a hash code or digest, it would have been obvious to one of ordinary skill in the art that the hash code may be applied to determine which journal file the versioned file belongs to.

Accordingly, for the aforementioned reasons above, the rejections under 35 U.S.C. 103 are sustained.

Conclusion

25. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Kim whose telephone number is (571) 272-2737. The examiner can normally be reached on M-F, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on (571) 272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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